

Different patterns in teachers' intentions concerning research integration: A different perspective on critical thinking

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1) Objectives or purposes

The purpose of this paper is to distinguish patterns in teachers' intentions concerning research integration, with a special focus on their diverse perspectives on critical thinking (CT).

2) Perspective(s) or theoretical framework

Research conceptions are thought to have a powerful influence on teachers' teaching practices (e.g., Brew, 2003; Robertson & Bond, 2001; Visser-Wijnveen et al., 2010). However empirical evidence is lacking. Norton, Richardson, Hartley and Mayes (2005) pointed at teachers' intentions as a crucial mediator between teachers' conceptions and teaching practices. Therefore this paper focuses on variations in teachers' intentions concerning research integration. Analysis of teachers' research conceptions, revealed three categories of different attributes constituting research (1) Research steps, (2) Research processes, and (3) Characteristics of the researcher, of which CT was an important aspect (Schouteden, Verburgh & Elen, 2013).

3) Methods, techniques, or modes of inquiry

Data were collected by focus groups, addressing (1) teachers' research conceptions, (2) teachers' intentions and (3) teachers' research integration approaches, in three subsequent phases. Analysis for this paper focused on the second phase. Teachers were asked which research attributes (distinguished in phase 1) are perceived important and less important for their students' careers and what they precisely expect students to be able to do. A systematic way of data reduction, data display and verification (Miles & Huberman, 1994) proceeded the identification of patterns within these intentions.

4) Data sources, evidence, objects, materials

In 20 focus groups 79 teachers participated. They came from seven programs organized in five teaching-intensive institutions in Belgium. All programs were selected from the same disciplinary area: soft-applied sciences (Biglan, 1973) and are scaled at level 5 in the ISCED 2011 classification system (OECD, 2013).

5) Results and/or substantiated conclusions or warrants for arguments/point of view

In depth-analyses revealed four different patterns concerning teachers' intentions with research integration: (1) Linking research results and practice in a critical way, (2) Performing a research process in professional practice, (3) Being a researcher and (4) Thinking critically. Although CT was perceived as the most important research attribute for students careers in each pattern, the interpretation of CT differed according to the pattern. In the first pattern teachers wanted their students to look for empirical evidence to improve their practice or, the other way around, to see the

practical implications of research results. CT is interpreted as CT towards information. In the second pattern teachers wanted their students to be able to critically conduct a whole small-scaled research by themselves. CT is perceived as CT towards oneself. In the third pattern teachers wanted their students to become a researcher. In this pattern four different meanings of CT are addressed: CT towards oneself, CT towards information, conscious of the perspective of others, and able to handle uncertainty. In the fourth pattern CT as such is aimed at. Despite the clear focus on CT the exact meaning of CT remains vague and is taken for granted.

6) Scientific or scholarly significance of the study or work

Although CT is the most important intention within each of the four patterns, the interpretation of CT differs, and coincides with a different set of other attributes, found important for student careers. The findings raise the questions whether these different patterns result in different teaching practices of research integration approaches.